HPH
INDUSTRIAL REFRIGERATION COMPONENTS

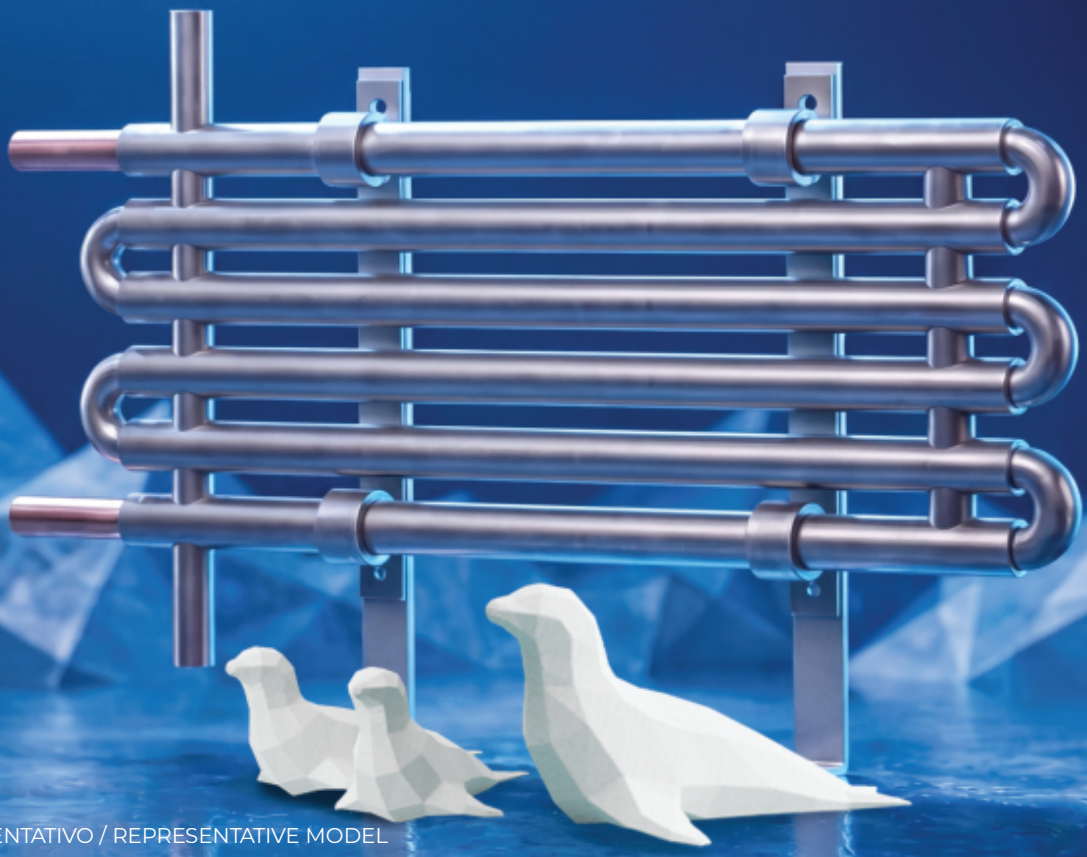
SERIE NMC + NSM / NMC + NSM SERIES

CONDENSATORI MODULARI AD ACQUA

CONTROCORRENTE

COUNTERFLOW MODULAR WATER-COOLED CONDENSERS

FINO A 13 kW PER SCAMBIATORE
UP TO 13 kW PER HEAT EXCHANGER



MODELLO RAPPRESENTATIVO / REPRESENTATIVE MODEL

APPLICAZIONI TIPICHE / TYPICAL APPLICATIONS

REFRIGERAZIONE COMMERCIALE
COMMERCIAL REFRIGERATION

BANCHI E VETRINE REFRIGERATE
REFRIGERATED COUNTERS & DISPLAYS

POMPE DI CALORE · RECUPERO DI CALORE
HEAT PUMPS · HEAT RECOVERY

PRODOTTO E APPLICAZIONI

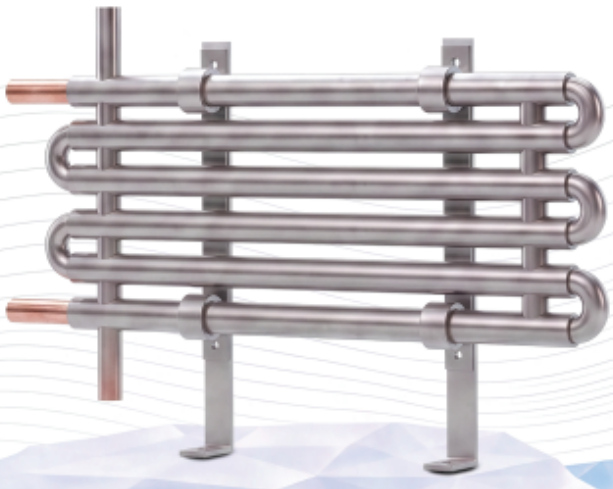
PRODUCT AND APPLICATIONS

Condensatori modulari NMC controcorrente realizzati in rame, con potenzialita fino a 13 kW. Piu scambiatori possono essere assemblati in parallelo mediante collettori per estendere la potenzialita totale. Utilizzabili con acqua di pozzo, acqua di torre o miscele incongelabili e con refrigeranti diversi dall'ammoniaca

I condensatori NSM condividono i vantaggi costruttivi della serie NMC, ma impiegano tubi interni lato acqua in cupronichel. La maggiore resistenza alla corrosione li rende particolarmente adatti agli impianti frigoriferi marini nei quali circola acqua di mare.

NMC Counterflow modular water-cooled condensers made of copper, with capacities up to 13 kW. Multiple units can be connected in parallel through manifolds to extend total capacity. Suitable for well water, cooling-tower water or non-freezing mixtures and refrigerants other than ammonia.

NSM condensers share the construction advantages of the NMC series, but use cupronickel internal water tubes. Their corrosion resistance makes them particularly suitable for marine refrigeration systems using sea water. Suitable for well water, cooling-tower water or non-freezing mixtures and refrigerants other than ammonia.



CARATTERISTICHE
CONSTRUCTION FEATURES

NMC Tubi interni lato acqua: rame
Internal water-side tubes: copper

NSM Internal water-side tubes: Cupronichel 90/10
Internal water-side tubes: cupronickel 90/10

APPLICAZIONI TIPICHE NMC / NMC TYPICAL APPLICATIONS

BANCHI FRIGORIFERI PER GELATERIE
REFRIGERATED GELATO COUNTERS



MACCHINE PER GHIACCIO
ICE MACHINES



APPLICAZIONI TIPICHE MSN / MSN TYPICAL APPLICATIONS

REFRIGERAZIONE A BORDO
ONBOARD REFRIGERATION



SALA MACCHINE
ENGINE ROOM SYSTEMS



DATI FISICI E CONNESSIONI
PHYSICAL DATA AND CONNECTIONS

SERIE NMC
NMC SERIES

	ΔT = 20 K			ΔT = 15 K		
PRESTAZIONI E DIMENSIONI / PERFORMANCE AND DIMENSIONS						
MODELLO MODEL	**kW**	**m3/h FLOW**	**kPa DROP**	**kW**	**m3/h FLOW**	**kPa DROP**
NMC 2	2	0.17	1	1.5	0.17	1
NMC 3	3	0.27	2	2	0.23	1.5
NMC 4	4	0.37	3.5	2.5	0.30	2.5
NMC 5	5	0.45	5	3.5	0.41	4
NMC 8	8	0.68	16	6.5	0.76	21
NMC 9	9	0.75	20	7	0.79	21
NMC 10	10	0.82	23	8.6	1.00	32
NMC 12	12	1.00	32	10	1.20	40

DATI DI PROGETTO
DESIGN DATA

PS LATO MANTELLO
PS SHELL SIDE 30 bar

PS LATO TUBI
PS TUBE SIDE 10 bar

TEMPERATURA
DESIGN TEMPERATURE -10 / +90 °C

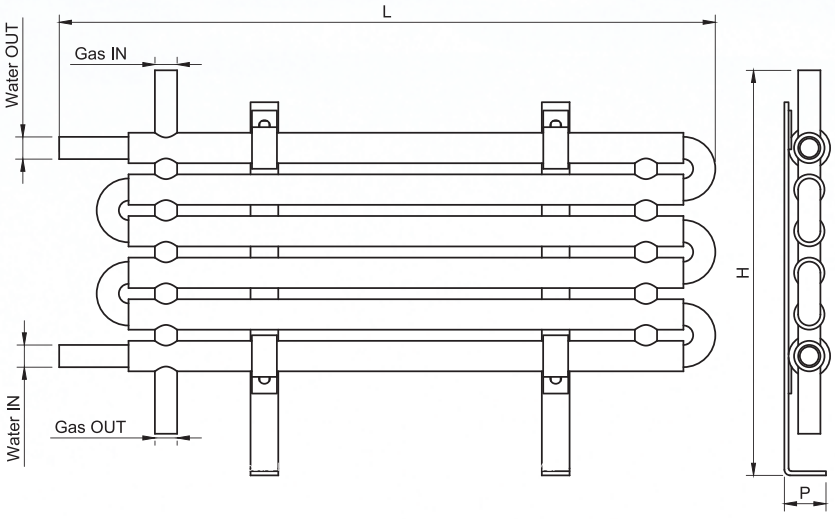
CONNESSIONI
CONNECTIONS

GAS IN
GAS IN Cu 16x1

GAS OUT
GAS OUT Cu 16x1

WATER IN / OUT: Cu Ni 16 x 1.2

SCHEMA DIMENSIONALE NSM
NSM DIMENSIONAL DIAGRAM



NMC: tubi lato acqua in rame · copper water-side tubes

DIMENSIONI - DIMENSIONS

MODELLO MODEL	L mm	H mm	P mm
NMC 2	385	220	30
NMC 3	415	220	30
NMC 4	435	220	30
NMC 5	485	220	30
NMC 8	415	280	30
NMC 9	435	280	30
NMC 10	460	280	30
NMC 12	485	280	30

DATI FISICI E CONNESSIONI
PHYSICAL DATA AND CONNECTIONS

SERIE NSM
NSM SERIES

	ΔT = 20 K			ΔT = 15 K		
PRESTAZIONI E DIMENSIONI / PERFORMANCE AND DIMENSIONS						
MODELLO MODEL	**kW**	**m3/h FLOW**	**kPa DROP**	**kW**	**m3/h FLOW**	**kPa DROP**
NSM 1.5	1.5	0.13	1	1	0.12	1
NSM 2	2	0.18	1	1.5	0.18	1
NSM 2.5	2.5	0.23	1.5	1.7	0.20	1.1
NSM 3.5	3.5	0.32	2.6	2.5	0.30	2.3
NSM 6	6	0.53	10	4.5	0.53	10
NSM 7	7	0.62	14	5	0.58	12
NSM 8	8	0.70	17	6	0.70	17
NSM 10	10	0.84	25	6.5	1.19	38
NSM 13	13	0.95	45	8	1.35	60

DATI DI PROGETTO
DESIGN DATA

PS LATO MANTELLO
PS SHELL SIDE 30 bar

PS LATO TUBI
PS TUBE SIDE 10 bar

TEMPERATURA
DESIGN TEMPERATURE −10 / +90 °C

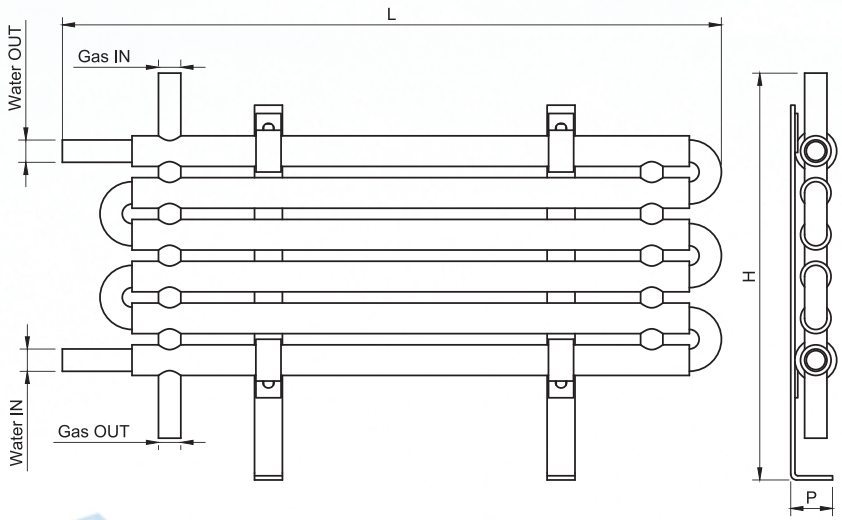
CONNESSIONI
CONNECTIONS

GAS IN
GAS IN Cu 16x1

GAS OUT
GAS OUT Cu 16x1

WATER IN / OUT: Cu Ni 16 x 1.2

SCHEMA DIMENSIONALE NSM
NSM DIMENSIONAL DIAGRAM



DIMENSIONI - DIMENSIONS

MODELLO MODEL	L mm	H mm	P mm
NSM 1,5	385	220	30
NSM 2	415	220	30
NSM 2,5	435	220	30
NSM 3,5	485	220	30
NSM 6	415	280	30
NSM 7	435	280	30
NSM 8	460	280	30
NSM 10	485	280	30
NSM 13	485	340	30

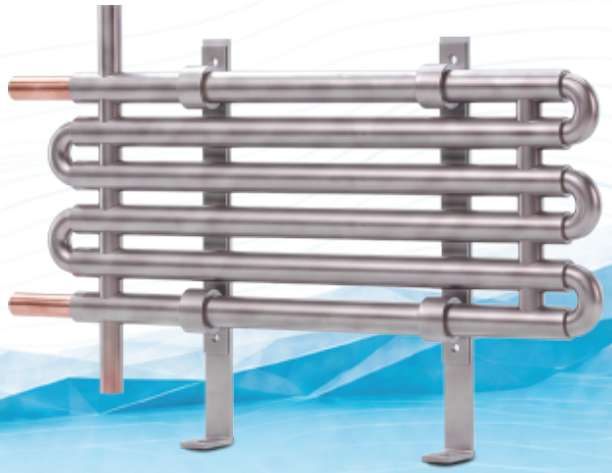
NSM: tubi lato acqua in cupronichel 90/10 · cupronickel 90/10 water-side tubes

NMC/ NSM SPECIALI

SPECIAL NMC HEAT EXCHANGERS

Su richiesta, per applicazioni particolari, e possibile realizzare scambiatori personalizzati nel numero di tubi e nella lunghezza. Gli scambiatori speciali possono inoltre essere installati in parallelo

For specific applications, heat exchangers can be customized in tube count and length. Special units can also be installed in parallel



ESEMPIO DI CODIFICA / CODING EXAMPLE

NMC 1.10.100 / NSM 1.10.100

1 SCAMBIATORE 1 HEAT EXCHANGER	**10 TUBI** 10 TUBES	**L = 100 cm** LENGTH = 100 cm

CONFIGURAZIONI DI INSTALLAZIONE

INSTALLATION CONFIGURATIONS

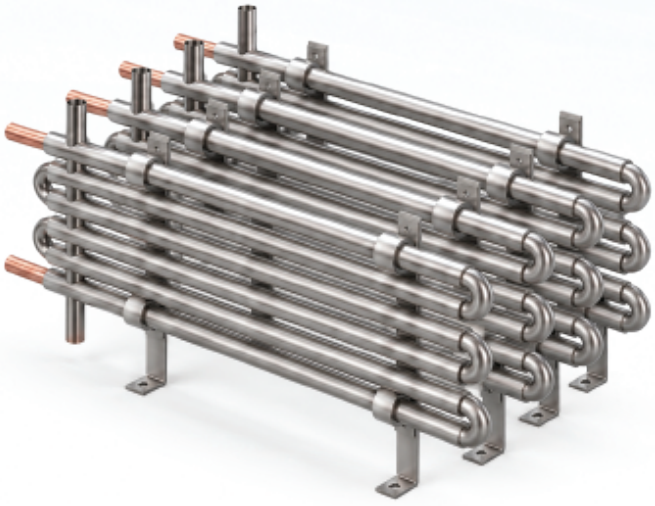
La modularita della serie NMC / NSM consente di aumentare la potenzialita totale mediante configurazioni studiate per lo specifico impianto.

The modular NMC / NSM series can extend total capacity through layouts engineered for the requirements of each installation.

ASSEMBLAGGIO STANDARD
STANMDARD ASSEMBLY



ASSEMBLAGGIO IN PARALLELO
MULTIPLE ASSEMBLY



Piu unita collegate mediante collettori / Multiple units connected through manifolds

SERIE NMC + NSM / NMC + NSM SERIES

CONDENSATORI MODULARI AD ACQUA
CONTROCORRENTE
COUNTERFLOW MODULAR WATER-COOLED CONDENSERS



CREIAMO FREDDO
WE CREATE COLD

HPH
INDUSTRIAL REFRIGERATION COMPONENTS

SCAMBIATORI DI SERIE
STANDARD HEAT EXCHANGERS

Componenti per refrigerazione industriale e commerciale.
Components for industrial and commercial refrigeration.

SOLUZIONI SU MISURA
CUSTOM-ENGINEERED SOLUTIONS

Scambiatori personalizzati per applicazioni speciali.
Custom heat exchangers for special applications.

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